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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,090	12/21/2005	Naoyuki Tokuda	P70856US0	5877

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WASHINGTON, DC 20004

EXAMINER

KENNEDY, ADRIAN L

ART UNIT	PAPER NUMBER
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2121

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/550,090

Applicant(s)

TOKUDA ET AL.

Examiner

Adrian L. Kennedy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/29/06 and 10/04/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Examiner's Detailed Office Action

1. This Office Action is responsive to application 10/550,090 filed September 21, 2005.
2. **Claim 6** was cancelled.
3. **Claims 1-5** were amended
4. **Claims 1-5** will be examined.

Claim Objections

5. Claim 5 is objected to because of the following informalities: The examiner takes the position that it is not clear whether the parenthetical element (“(heaviest common sequence)”) in line 6 of claim 5 is part of claim 5 or not. The examiner respectfully request that if said element is part of the claimed invention, that the parenthesis be removed. Appropriate correction is required.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The examiner takes the position that the applicant's claimed “system” could be driven by software or hardware, however for the purpose of examination the examiner asserts that the applicant's claimed “system” is software. Furthermore, based on the previous assertion, the examiner has found that the applicant's claimed invention is software per se. This

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position is based on the fact that the applicant's claimed "system" is non-functional descriptive matter.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1, the applicant's disclosure does not disclose a definition or application of the applicant's claimed "production rules", that would enable one skilled in the art to make said "production rules". Additionally, in defining the applicant's claimed "buggy rules" in terms of the applicant's claimed "production rules", the applicant has failed to enable one skilled in the art to make said "buggy rules". Furthermore, in order to expedite prosecution, the examiner has asserted definitions based on the claimed invention in light of the disclosed invention for the applicant's claimed "production rules" and "buggy rules". Appropriate correction is required.

Regarding claim 2, the applicant's disclosure does not disclose a definition or application of the applicant's claimed "fat template". Furthermore, in order to expedite prosecution, the examiner has asserted a definition for this term based on the claimed invention in light of the

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disclosed invention. However, the lack of support for this term in the applicant's disclosure must be corrected.

Regarding claims 4 and 5, the applicant's disclosure does not disclose a definition or application of the applicant's claimed "slim template" (Claim 4), "larger template" (Claims 4 and 5), and "thicker template" (Claim 4 and 5). Furthermore, in order to expedite prosecution, the examiner has asserted a definition for this term based on the claimed invention in light of the disclosed invention. However, the lack of support for this term in the applicant's disclosure must be corrected.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-5 rejected under 35 U.S.C. 102(b) as being anticipated by Tokuda et al. (An Online Tutoring System for Language Translation).

Regarding claims 1:

Tokuda et al. teaches,

(amended) A computer-aided template-template structured dialogue learning system

(Page 46, Center Column, Paragraph 1; "*Intelligent Language Tutoring [System]*")

which, in a template structure (Page 46, Left Column, Paragraph 1; "*template structure*")

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for providing natural language expression (Page 46, Center Column, Paragraph 1;

“natural language expression”),

exploits the extracting power of buggy rules based on the deviations thereof from those produced by production rules providing regular grammar of natural language (The examiner takes the position that the “exploiting” as claimed by the applicant, is inherent in Tokuda et al. teaching the use of error classification when forming templates on Page 47. This position is based on the fact that Tokuda et al. distinguishes between normal templates and erroneous templates, which would anticipate the distinguishing between production rules and buggy rules.), and which uses a template-template structure where some of nodes in the template-template structure are marked with extracting rule-associated symbols enabling the extraction of many templates or a so-called large template (Page 50, Parser Notations Box, and Right Column Paragraph 2, *“syntactically bracketed structure”*; The examiner takes the position that in teaching the use of various “parser notations” in the template, and the separating of the template structure into smaller structures, Tokuda et al. anticipates the applicant’s claimed invention.).

Regarding claims 2:

Tokuda et al. teaches,

(amended) A computer-aided learning dialogue system which uses a template-template scheme that is designed so that in order to extract and expand a single slim template-

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template to a plurality of templates or a larger template some nodes of a template are assigned with extractions rule-associated special symbols corresponding to the transition nodes thereby enabling expansion and extraction to a fat template or many templates (Page 50, Right Column, Paragraph 4; “*we can split the sentence into six smaller structures*”; The examiner takes the position that the applicant’s claimed “extracting” and “expanding” of a template using various “symbols” is inherent in the splitting of a sentences into smaller structures.).

Regarding claims 3:

Tokuda et al. teaches,

(amended) A computer-aided learning dialogue system which is based on a extraction rule wherein the extraction rule is always associated with a set of symbols, $\{s_1, s_2, \dots, s_n\}$, and each of the symbols is assigned to one or more nodes in the template, and one or more values is assigned to the associated symbols (Page 50, Parser Notations Box; The examiner takes the position that that parser notations taught in the invention of Tokuda et al. anticipate the applicant’s claimed symbol. This position is supported by the fact that the applicant’s claimed “symbols” are identical to the “symbols” taught in paragraph of the applicant’s disclosed invention.).

Regarding claims 4:

Tokuda et al. teaches,

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(amended) A computer-aided learning dialogue system which is based on buggy rules wherein an automatic bug diagnostic function which is obtained by expansion of existing buggy rules to define as bugs deviations caused by incorrect application of production rules providing regular grammar of language to be learned from the rules is used to expand a single slim template-template into a larger template or a thicker template, thus enabling automatic diagnosis of grammatical errors committed by a learner (Page 47, Left Column-Right Column; Template and error classification Section; The examiner takes the position that in teaching the classification of errors in various part of the template structure, Tokuda et al. anticipates the applicant's claimed "bug diagnostic function" which determines when template learning errors are performed. Also in teaching the parsing of the template structure starting with smaller units rather than the original sentences, Tokuda et al. anticipates the "expansion" from "slim templates" to "larger templates".).

Regarding claims 5:

Tokuda et al. teaches,

(amended) A computer-aided learning dialogue system wherein a path optimized for an input sentence is found from all paths that are extractable directly from an template-template without expanding the template- template to a larger template or thicker template, by using an HCS matching (heaviest common sequence) algorithm with which on digraph the most heaviest common sequence is selected by a dynamic programming from common sequences assigned to words on the templates (Page 47, Left Column,

Paragraph 2; *“The matching algorithm of heaviest common sequence (HCS) [...] selects an optimal sentence having the highest similarity value (or HCS) with the input sentence”*; The examiner takes the position that in teaching the use of the “heaviest common sequence” for template matching, and the analysis of smaller units instead of the entire input sentence, Tokuda et al. anticipates the applicant’s claimed invention. Additionally, the examiner takes the position that in teaching the application of the HCS in a digraph in Paragraph 2 of the Right Column of Page 49, Tokuda et al. anticipates the applicant’s claiming of the application of the HCS matching algorithm in a digraph.).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure. Huang et al. is cited for his syntactical approach to diagnosing multiple bugs in an intelligent tutoring system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrian L. Kennedy whose telephone number is (571) 270-1505. The examiner can normally be reached on Mon -Fri 8:30am-5pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ALK



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